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10/718,655	11/24/2003	Peter Steger	P69299US0	1179

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EXAMINER

CABRERA, ZOILA E

ART UNIT	PAPER NUMBER
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2125

DATE MAILED: 10/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/718,655

Applicant(s)

STEGE, PETER

Examiner

Zoila E. Cabrera

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/23/04;07/28/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

Regarding claims 9-10, the phrase "for example" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 20 recites "goggle-like" form, however, there is no antecedent basis in the specification for this limitation.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2125

Claims 1-15, 17-19, 22, 25-28, 31-37, and 41-45 are rejected under 35 U.S.C. 102(b) as being anticipated by **Kretschmann (US 6,167,464)**.

Kretschmann discloses,

1. Station, in particular machining, measuring, conveying station and the like which is arranged in particular in a machine line with a central control unit, with at least one control unit with a control panel for indication, control and/or diagnosis functions of the station, the control panel (6) being able to act portably and wireless at least upon the control device (5) of the station (Fig. 1), characterised in that a locally binding device is provided and the portable control panel (6) can act upon the control device (5), respectively the station (1-4), only when the locally binding device is activated (Figs. 1, 5, elements 28, 12, 18; Col. 4, lines 44-50).

2. Station according to claim 1, characterised in that the station (1-4), respectively the central control device (II), and the control panel (6) are connected to each other by at least one transmitter (7) each and at least one receiver (8) each, and that the control panel (6) has a transmitter/receiver unit (17, 18) for a bidirectional communication with the station (1-4), respectively the central control unit (II) (Figs. 1-2; Col. 4, lines 50-61; Col. 5, lines 10-20).

3. Station according to claim 1, characterised in that at least one control panel (6) can be connected with several stations (1-4) simultaneously or one after the other (Fig. 1).

4. Station according to claim 1, characterized in that the control panel (6) acts indirectly over the central control unit (II) or directly on the control device (5) of the station (1-4) (Col. 6, lines 1-12).

5. Station according to claim 1, characterised by uniform function, indication and control programmes of the control panels (6) for the stations (1-4), respectively their control devices (5), in such a way that a uniform operation of the different stations is possible independently from the respective type of machine (Col. 6, lines 46-55).

6. Station according to claim 1, characterised in that the control panel (6) is connected wireless with the central control unit (II) of the machining and production line (I) in such a way that programmes and functions of the central control unit (II) from the control panel (6) for the machining and production line (I), respectively for a particular station, can be called and/or activated, respectively can be transmitted to the control panel (Figs. 1-2, 6; Col. 6, lines 1-67).

7. Station according to claim 1, characterised in that the station (1-4) has a definite station codification and because of the station codification in the control panel (6) the respective programmes and functions for the station can be activated (Col. 6, lines 1-12 and lines 46-67).

8. Station according to claim 1, characterised in that the control panel (6) has a definite control panel codification (Col. 6, lines 1-12 and lines 46-67).

9. Station according to claim 1, characterised in that certain programmes, functions, authorisations, respectively areas of responsibilities, can be allocated to the service person through the control panel (6) via an identifying device, for example a key-operated switch, password check via input and view panel, magnetic strip reader, smart card, transponder or the like (Fig. 5; Col. 6, lines 13-34).

10. Station according to claim 1, characterised in that the wireless connection is an electromagnetic connection, for example a radio link, an infrared or optical connection (Fig. 1; Col. 6, lines 35-41).

11. Station according to claim 1, characterized in that the control panel (6) has voice select menus by means of which voices can be set (Col. 5, lines 1-5).

12. Station according to claim 1, characterised in that the locally binding device is designed as additional wireless connection between the control panel and the station, respectively the machining and production line (Figs. 1-2; 6).

13. Station according to claim 1, characterised in that the locally binding device is

Art Unit: 2125

realised in an arrangement which is separated from the control panel, in particular from the person identifying apparatus, and the locally binding device can only be activated when the service person carrying this arrangement is within the range of the station (Col. 6, lines 56-67).

14. Station according to claim 1, characterised in that the locally binding device is formed by means of a locating arrangement for the continuous identification of the location either of the control panel or the service person, and the locally binding device can only be activated when the location is in the range of the station (Col. 6, lines 56-67).

15. Station according to claim 1, characterised in that the locally binding device is designed as electromagnetic, mechanic, electric or optically acting switch (Col. 6, lines 56-67).

17. Station according to claim 1, characterised in that the locally binding device is designed as connection operating in the radio band or in the IR spectral range (Col. 4, lines 49-50).

18. Station according to claim 1, characterised in that the locally binding device can be activated by receiving the signal emitted by the control panel through the receiver with minimum signal intensity (Col. 6, line 65, low powered IR).

Art Unit: 2125

19. Station according to claim 1, characterised in that the locally binding device can be activated by receiving the signal emitted by the control panel through several, if necessary pre-defined, receivers (Fig. 6, element 70).

22. Station according to claim 1, characterised in that the control panel (6) has a voice input and output system, through which the communication between the service person (9, 10) and the control panel (6) is carried out (Col. 5, lines 1-11).

25. Station according to claim 1, characterised in that the stations (1-4) on occurring error messages, respectively pending jobs, if necessary depending from the kind of error, respectively job, transmit error information, respectively job information, to a control panel (6), depending from the kind of error, respectively job, to a special control panel (6) (Col. 6, lines 46-55).

26. Station according to claim 1, characterised in that the control panel (6) has an acoustically, optically and/or mechanically acting information unit which is activated by the arrival of an error or job information (Col. 1, lines 53-65).

27. Station according to claim 1, characterised by a digitalized data transfer of the wireless connection (Figs. 1-2, 6).

28. Station according to claim 1, characterised in that the central control unit (II), respectively the station (1-4) or the control panel (6) also protocols and, if

Art Unit: 2125

necessary, stores the individual programmes/functions carried out on the station via the control panel (6) (Col. 6, lines 45-55).

As for claim 31, the same citations applied to claim 1 above apply as well for this claim.

32. Machine line according to claim 31, characterised in that several stations (1-4) are connected via a common transmitter (7) and receiver (8) with at least one control panel (6) and/or the central control unit (II) (Fig. 1).

33. Machine line according to claim 31, characterised in that the central control unit (II) is designed as central computer (Fig. 1).

34. Machine line according to claim 31, characterised in that the stations (1-4) of the machining, respectively production, line as well as the central control unit (II) are connected to each other by a data network and the transmitter/receiver (7, 8), respectively the locally binding device, is either indirectly connected via the station or directly with the data network (Figs. 1, 2, 6).

35. Machine line according to claim 31, characterised in that the machine line is designed as machining line, respectively as production line (Figs. 1-2, 6).

Art Unit: 2125

As for claim 36, the same citations applied to claims 1, 5-7 above apply as well for this claim.

As for claim 37, the same citations applied to claim 1 above apply as well for this claim.

41. Method according to claim 36, characterized in that the control panel depending on the station codification is fed with the respective programmes/functions from the central control unit (II) (Col. 6, lines 1-67; Fig. 5).

42. Method according to claim 36, characterized in that the service person is identified via an identifying device on the control panel and is, user-dependent, supplied with the respective programmes/functions (Col. 6, lines 1-67).

43. Method according to claim 36, characterised in that one control panel is connected simultaneously with two or more stations (Figs. 1, 6).

44. Method according to claim 36, characterised in that one station is connected simultaneously with two or more control panels (Figs. 1, 2, 6; Col. 7, lines 1-21).

45. Method according to claim 36, characterised in that before the control panel can access the station for indication, control and/or diagnosis purposes, the

Art Unit: 2125

identity of the service person who has been determined by the identifying device is checked in the central control unit and because of this checking programmes, functions, authorisations, respectively areas of responsibility intended for the service person are cleared and after this clearing the control panel accesses the station in the frame of the above mentioned clearing directly (Col. 6, lines 7-34; Fig. 5; Col. 5, lines 54-65).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16, 23-24, and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kretschmann (US 6,167,464)** in view of **Graiger et al. (US 6,717,382)**.

Regarding claims 16, 23-24 and 38-40, **Kretschmann** discloses the limitations of claims 1 and 36 above but fails to disclose the limitations of claims 16, 23-24 and 38-40. However, **Graiger** discloses such limitations as follows:

16. Station according to claim 1, characterised in that the locally binding device can only be activated within a pre-defined distance between the service person and the station (Col. 3, lines 7-15; Col. 4, lines 62-67).

23. Station according to claim 1, characterised in that the control panel (6) has sensors for the activity of the service person which recognise irregularities of the service person (9, 10) and, if necessary, activate an emergency programme, in particular activate a stopping of the station or the production line (Col. 2, lines 55-63; Col. 4, line 63 to Col. 5, line 2).

24. Station according to claim 1, characterised in that the control panel (6) has a data input and a data indication device, in particular a touch-sensitive screen for control, indication, input, respectively service, functions (Col. 6, lines 50-59).

38. Method according to claim 36, characterised in that simultaneously, before or after establishing the communication channel the locally binding device is checked and, if the checking is positive, the locally binding device is activated (Col. 2, lines 38-43).

39. Method according to claim 36, characterised in that with the locally binding device it is checked whether a further signal serving the locally binding device has been sent from the control panel and is received by the receiver (Col. 2, lines 38-43).

40. Method according to claim 36, characterised in that with the locally binding device it is checked whether switches located in the range of the station are

Art Unit: 2125

operated by the service person (Col. 2, lines 55-62).

Therefore, it would have been obvious to a person of the ordinary skill in the art at the time the invention was made to combine the mobile human/machine interface for use with industrial control systems of **Kretschmann** with the mobile control and monitoring unit of **Graiger** because it would provide an improved system wherein a user can be alerted to the fact that an operational connection has been established with the respective machine by acoustic and/or optical means by a clear signal indicated at least on the respective machine and/or on the control and/or monitoring unit when a link or connection has been established.

4. Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kretschmann (US 6,167,464)** in view of **Miller (US 7,109,970 B1)**.

Kretschmann discloses the limitations of claim 1 above but fails to disclose the limitations of claims 20-21. However, **Miller** discloses such limitations as follows:

20. Station according to claim 1, characterised in that the control panel (6) is designed as a control panel unit which is worn on the head and has in particular a goggle-like form (Col. 1, lines 40-67).

Art Unit: 2125

21. Station according to claim 1, characterised in that the control panel (6) is designed as a control panel unit worn on the head and that it has a visor by means of which information for the service person (9, 10) is indicated (Col. 1, lines 40-67).

Therefore, it would have been obvious to a person of the ordinary skill in the art at the time the invention was made to combine the mobile human/machine interface for use with industrial control systems of **Kretschmann** with the apparatus for remotely controlling devices because it would provide an ergonomically designed apparatus to enable it to be easily worn and to enable a user to operate a device (**Miller**, Col. 2, lines 13-15).

5. Claims 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kretschmann (US 6,167,464)** in view of Applicant's Admitted Prior Art (Specification, Page 6).

As for claims 29-30, **Kretschmann** discloses the limitations of claim 1 above, the same citations applied to claim 1 above apply as well for most of the limitations of claim 30. However, **Kretschmann** does not disclose the wireless connection between the control panel (6) and the control unit (5) is carried out via radio, in particular in a frequency range between 200 megahertz and 100 gigahertz, preferably between 1 and 10 gigahertz, in particular between 2 and 3 gigahertz, as well as between 4 and 6 gigahertz. But Applicants admit that the mentioned frequency ranges are used because the connection in such frequencies is very

Art Unit: 2125

little prone to interference and stable (Page 5, last paragraph). Applicant further admits that the known technology "Bluetooth" is used since it is a communication protocol extremely stable against interference between the transmitter and the receiver (Page 6, 1st paragraph).

Therefore, it would have been obvious to a person of the ordinary skill in the art at the time the invention was made to have used the known technology "Bluetooth" with the teachings of **Kretschmann** because it would provide a stable communication with very little interference.

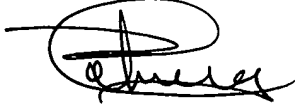
Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning communication or earlier communication from the examiner should be directed to Zoila Cabrera, whose telephone number is (571) 272-3738. The examiner can normally be reached on M-F from 8:00 a.m. to 5:30 p.m. EST (every other Friday).

If attempts to reach the examiner by phone fail, the examiner's supervisor, Leo Picard, can be reached on (571) 272-3749. Additionally, the fax phones for Art Unit 2125 are (571) 273-8300. Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist at (703) 305-9600.

Zoila Cabrera
Primary Examiner
9/28/06



**ZOILA CABRERA
PRIMARY EXAMINER
TECHNOLOGY CENTER 2100**